IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of	:	Mohan R. Duggi
Serial No.	:	10/764,129
Filed	:	January 23, 2004
For	:	APPARATUS AND METHOD FOR COLLECTING ACTIVE ROUTE TOPOLOGY INFORMATION IN A MOBILE AD HOC NETWORK
Art Unit	:	2617
Examiner	:	Christopher M. Brandt

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Commissioner for Patents
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Sir:

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal. The review is requested for the reason(s) stated in the arguments below, demonstrating the clear legal and factual deficiency of the rejections of some or all claims. Claims 1-20 were rejected as obvious over over U.S. Patent No. 7,027,426 B2 to Billharts, (hereinafter, simply "Billharts") in view of U. S. Patent

Application Publication No. 2002/0039357 to Lipasti, et al. (hereafter, simply "Lipasti"). The

rejection is legally and factually deficient. For the convenience of the Panel, claim 1 requires:

> 1. For use in a mobile ad hoc network formed by a plurality of mobile ad
> hoc network (MANET) nodes, a first MANET node capable of collecting
> route information associated with a first route from a source MANET node
> to a destination MANET node, said first MANET node comprising:
> a radio frequency (RF) transceiver capable of wirelessly communicating
> with other ones of said plurality of MANET nodes according to an
> ad hoc on-demand vector (AODV) protocol; and
> a controller capable of receiving incoming data packets from said RF
> transceiver and sending outgoing data packets to said RF
> transceiver,
> wherein said controller receives a Path Marker Request message generated
> by said source MANET node and retrieves first route topology data
> associated with said first route from said first Path Marker Request
> message, said first route topology data identifying all intermediate
> MANET nodes in said first route coupling said first MANET node
> to said source MANET node.

No art of record, alone or in combination, teaches or suggests that the controller receives

a Path Marker Request message generated by the source MANET node and retrieves first route

topology data associated with a route from the first Path Marker Request message, or that the

first route topology data identifies all intermediate MANET nodes in the route coupling the first

MANET node to the source MANET node, as claimed. Lacking these, the rejection is legally

and factually deficient.

The Examiner alleges that this is taught by Billharts at col. 5, lines 3-31, but the only

thing taught in this passage as being sent and received is route request RREQ. Route request

RREQ is not taught or suggested to be a "path marker request message" as claimed, or an

equivalent of the path marker request message. Nothing in the art of record teaches or suggests

that first route topology data associated with a route can be retrieved <u>from the route request</u> RREQ, as would be required. As the Examiner notes, Billharts only discloses that RREQ includes a "source node channel identifier" (col. 5, lines 16-17). The Examiner's rhetorical question, in the Advisory Action, does not impute a teaching to Billharts that is contradictory to what Billharts actually does teach, and so the rejction is deficient.

The Examiner instead refers to Lipasti paragraph 0010, indicating that "topology" is read as "routing addresses". Lipasti only appears to teach, in relevant part, of using additional source/destination routing addresses and using these for routing instead of network layer addresses or data link layer addresses. This does not discuss anything about a network route topology at all, and certainly nothing in Lipasti specifically discusses a route topology. A network address, or even a collection of addresses, is not a topology. The rejection is factually deficient.

Further, even if Lipasti's addresses were somehow a "topology", nothing in the art of reference teaches or suggests that Lipasti's addresses can or should be used as part of Billhartz's route request RREQ, or that these addresses could be extracted from the RREQ. To meet the claim limitation, the controller must <u>retrieve route topology data identifying all intermediate MANET nodes in said first route coupling said first MANET node to said source MANET node from the first Path Marker Request message.</u> Nothing in the art of record teaches or suggest anything like this. No route topology can be extracted from Billhartz's RREQ. Nothing in Lipasti teaches or suggests any topology can be extracted from any packet. When no art of record teaches the limitation, there has been no showing at all of the limitation, and no

combination of the references can make the limitation obvious or predictable. The rejection is

legally deficient for failing to show this limitation in any reference.

Applicant has reviewed the Examiner's responses, and must respectfully note that the

Examiner's analysis simply doesn't reach the claim limitations. Lipasti does describe source and

destination addresses, and indicates that a routing table can include a "next hop" address. None

of this meets the claim requirements for the route topology data – that the data identify all

intermediate notes in a route coupling a first node to a source node. Knowing the "next hop"

after the first node doesn't meet the limitation, as the "next hop" isn't one of the intermediate

hops on which the packet has been received.

More importantly, Claim 1 clearly requires that the route topology data is retrieved from

the first path marker request message. Even considering Lipasti's suggestion that a node can

have a routing table, there is no teaching or suggestion in any reference of record that any request

message, including Billhart's RREQ, can include route topology data. It would not be sufficient

to simply determine that route topologies were known in the art (if there were any art of record

that so taught); the topology must be able to be retrieved from the request message in order to

meet the claim limitations.

No combination of Billhartz and Lipasti can meet the claim limitations.

Claim 11 includes similar limitations. As can be seen, no art of record, alone or in

combination, teaches or suggests the limitations of the independent claims. Further, nothing in

Billhartz, or Lipasti, alone or in combination, teaches or suggests storing a retrieved route

topology data in a route table associated with a controller, as in claims 2 and 12. The rejections

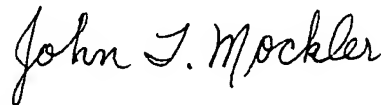of all claims are legally and factually deficient.

CONCLUSION

As a result of the foregoing, the Applicant asserts that the claims in the Application are in

condition for allowance over all art of record, and that the rejections are both factually and legally

deficient, and respectfully requests this case be returned to the Examiner for allowance or,

alternatively, further examination.

The Commissioner is hereby authorized to charge any additional fees connected with this

communication or credit any overpayment to Munck Butrus Deposit Account No. 50-0208.

Respectfully submitted,

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